

AN URBANISM THEORY FOR CHENGDU:
CRITERIA TOWARDS ADVANCING AN ALTERNATIVE URBAN DEVELOPMENT MODEL FOR
CENTRAL CHINESE CITIES

BY

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THESIS

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ABSTRACT

This project advances an alternative urban development model for central Chinese cities. Urbanization of Chinese cities occurred within a relatively short time compared to western cities. The related urban theories, as a consequence, are less developed. Most Chinese cities apply western urban theories directly to an eastern setting, which causes underused and unsuccessful urban space. Currently, both Chinese citizens and theorists are looking for an urban development model that can perfectly fit in the specific context. In this thesis, the Kuanzhai district is the main study model. Kuanzhai, a historical commercial district in Chengdu, holds great popularity and contributes to the conservation of the local culture. Chengdu is the largest and oldest city in central China. Other central Chinese cities look to Chengdu as a model of a good balance between modernization and cultural heritage in its built environment. In order to establish a unique urban theory for central Chinese cities, this thesis presents a study of western urban theories since 1960, conducts an intensive analysis of Chengdu's Kuanzhai district, and makes a comparison of these theories to the Kuanzhai district. The analysis of Kuanzhai focuses on five components of urban space; these are identified as people, time, programs, space/scale and materiality. The outcome reveals the discrepancies between western urban design theories and the situation of Chengdu, and establishes unique criteria for the development of central Chinese cities. To test the generality, rationality and applicability of the criteria, two other places in the city of Chengdu--Wenshu and Kejia, are also examined. The goal of this thesis is to use those criteria to advance a development model specific to central Chinese cities that underscores a unique cultural and physical composition within the built environment.

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CHAPTER 1 INTRODUCTION

1.1 Western Cities' Urbanization and Related Theories

Urban planning is a technical and political process concerned with land use and design of the urban environment, including transportation networks, as a means of guiding and ensuring the orderly growth of villages and communities. It concerns itself with research and analysis, strategic thinking, architecture, urban design, public consultation, policy recommendations, implementation and management (Laurini 2001, 14). Urban design is the multi-disciplinary activity of shaping and managing urban environments, interested in both the process of this shaping and the spaces it helps to shape. Combining technical, social, and expressive concerns, urban designers use both visual and verbal means of communication, and engage in all scales of the urban social-spatial continuum (Madanipour 1997, 363).

The western tradition of urban planning began as a movement primarily occupied with matters of urban development. By the 19th century, the work of western theorists concerning the development of modern urban planning models were well understood. By providing citizens with healthier environments, the goal was to alleviate the negative consequences of industrialization. Sir Ebenezer Howard, one of the first influential urban planning theorists, initiated the Garden City Movement in 1898 (Hall and Jones, 2010). He published the book *To-Morrow* in that year, which was reissued in 1902 under its present title: *Garden Cities of Tomorrow*. It is commonly regarded as among the most important books in the history of urban planning.

In this book, Howard sought to offer solutions to the difficult problems facing the cities and towns of Europe following the Industrial Revolution. Mostly, he tried to solve problems

related to overpopulation of urban core, the depopulation of rural area, and the lack of proper town planning. Howard proposed establishment of new towns linked by railroad service (*figure 1.1*). Those towns were to be planned in advance. For instance, the plan offered a whole range of employment opportunities, created a green belt around the commercial center, limited the number of houses and designated large areas as open areas, including parks and private gardens. The general goal of Howard's plan was to preserve the natural beauty of the landscape while offering the security of healthy living conditions (Katz 1994, 468).

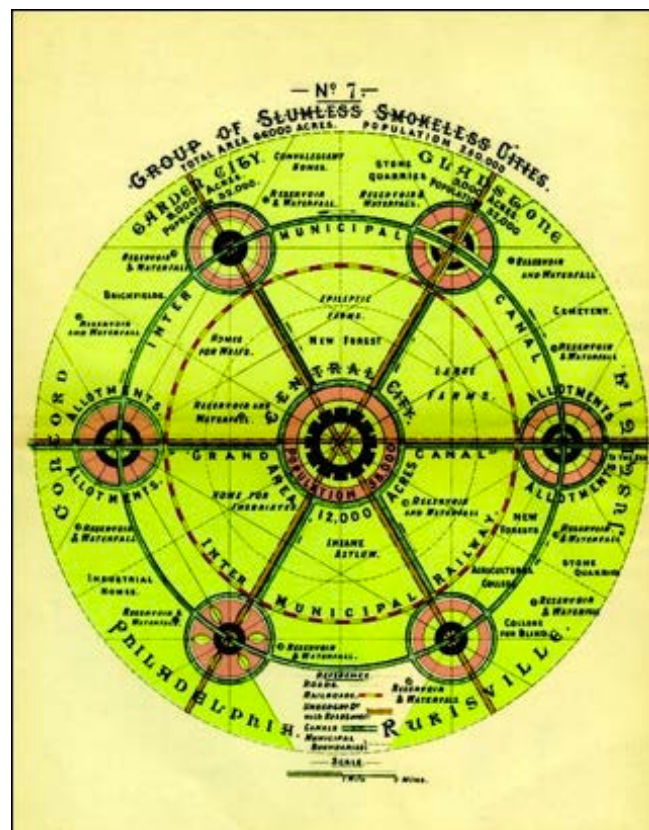


Figure 1.1 Howard's Diagram of Garden City.

<http://cdn.theatlanticcities.com/img/upload/2012/11/08/Screen%20Shot%202012-11-08%20at%203.12.24%20PM.png>. [2013].

During the same period, urban planning was established as a profession. Utopian visionaries, practical engineers and local councilors applied local politics to produce new design

models, establishing The Town and Country Planning Association in 1899. Urban design was a field that became established much later. In the 1956 Urban Design Conference held by Harvard University, for the first time, "Urban Design" was used as a term on its own. Well-known theorists of that time--Gordon Cullen, Kevin Lynch, Jane Jacobs and Christopher Alexander, had produced magisterial works that are still beneficial and influential currently.

Gordon Cullen's signature work is *The Concise Townscape*, published in 1961. It had great impact on urban designers. In his book, Cullen tested the classical artistic method of city design from the former theorists--Unwin and Parker. They both were prominent and influential English urban planners whose theories are influenced by William Morris and Ebenezer Howard (Planetizen). Cullen defined the urban landscape as a succession of related species and initiated the notion of 'serial vision' (Cullen 1961). It is used to describe what a pedestrian experiences when walking through a built environment (Roberts 2012).

In the same year, Kevin Lynch's *The Image of the City* was influential as well. In his book, Lynch made generalizations about urban design theory. In his theoretical model the city is made legible through five elements: paths, districts, edges, nodes and landmarks--categories that are still widely used today to describe urban morphology. Additionally, this approach placed a new emphasis on citizen experience and input in planning process. As well as the physical map, Lynch also proposed to use the mental maps to understand the urban space. Mental maps are the strong images evoked in observers when they are in a physical object space (Lynch 1960, 9). This was an important step in the evolution of western urban theories.

Another influential theorist, Jane Jacobs, is best known for her first book *The Death and Life of Great American Cities* (1961). It established her as a leading critic of city planning. She

also claimed that the reason behind the increasing crime rate was the great increase of anonymous spaces (places with no or few eyes upon the streets) in the public realm (Jacobs 1961, 46).

Other seminal works include Rossi's *Architecture of the City* (1966), Venturi's *Learning from Las Vegas* (1972), Colin Rowe's *Collage City* (1978), and Peter Calthorpe's *The Next American Metropolis* (1993), and most recently Henry Shaftoe's *Convivial Urban Spaces* (2008). Rowe presented the notion of 'historicism' and 'collective memory' to urban design, and proposed a 'collage metaphor' to help the understanding of the new and old forms in the same urban space. For Calthorpe, he looked into sustainable urban living and proposed a design manual for new settlements. As the outcome of all those works, terminologies like: 'livability', 'sustainability', 'historicism', and so on have become part of the discourse of best practices for urban theories.

1.2 China's Fast Urbanization and Less Developed Theories

"People live in an age of extreme urbanization. Nowhere is this more palpable than in the cities of China," said Eisenchnidt (Eisenchnidt 2012, 129). China has gone through intense urbanization in the past five decades at a virtually unprecedented rate (*figure 1.2*). As Eisenchnidt stated:

In a country with the fastest urban growth rate recorded in human history whose cities are increasingly challenged and reconditioned beyond previous notions of urbanity, the public's inventiveness to engage with these terrains is constantly tested. This can be seen particularly vividly through the relationship between the formal organization of the

city and the informal engagement of its citizens. A particularly vivid condition between the formal organization of the city and the informal engagement can be observed (Eisenschmidt 2012, 129).

Since the mid-1990s, China's new round of market-oriented economic reforms have driven the processes of population migration and urbanization at an extraordinary pace. This has happened mainly through massive rural-to-urban migration and the development of new urban centers (Wang and Murie 1996, 971; Ma 2002, 1546). In the meantime, China has also undergone an evolutionary process of urban housing commercialization (Wu 1996, 1603). Faced with simultaneously rapid urbanization and an urban housing transition, many scholars have expressed their worries about the urban problems caused by speedy urbanization (Yang 1993, 798; Kojima 1995, 133; Yeung and Shen, 2004).

Due to the short amount of time since the onset of spectacular growth in China, many Chinese cities have not had sufficient time nor means to generalize a well developed and context-based urban theory thesis system. Directly taking the western theories and applying those to the eastern built environment creates a less inviting space to urbanites. Western theories are developed for the characteristic development of capitalist western cities while Chinese cities' contexts are totally different.

In urban cities, small public urban spaces, such as plazas, are designed for urbanites to socialize and engage in other activities. Interestingly, some of the spaces work very well and are being densely used, while others are ignored. The resulting discrepancies are worth analysis and study, since the westernized urban spaces are being partially used, albeit in an unbalanced way. Urban cities, especially those in China, have a high density of population. With population

density in mind, unevenly distributed urban spaces presents the problem of wasted urban space. Worse, the urbanites are not well served in the built environment.

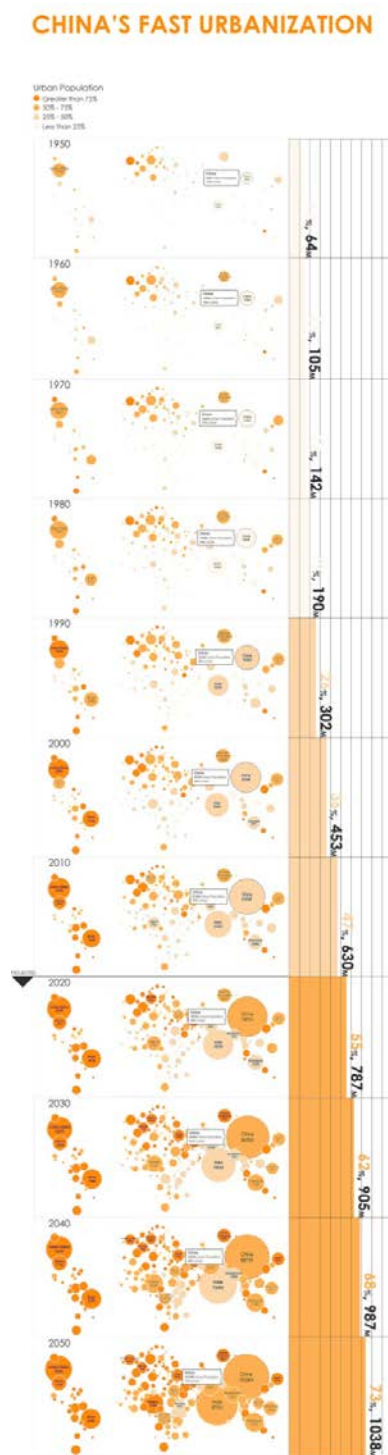


Figure 1.2 Urbanization Pace of the World. Author's Diagram.

As Henry Sheftoe (2008) described in *Convivial Urban Spaces*: "People still produce many tracts of soulless urban fabric that may deliver the basic functional requirements of shelter, work and leisure, but are socially unsustainable and likely generators of future problems,"(Sheftoe, 2008, 5).

Cities in China such as Chengdu, have intensely and quickly developed in the past two decades (*figure 1.3*). Though they are highly developed economically and politically, the urban design theories and studies towards them have not been well established. In most cases, developed cities in China use the western theories directly without considering their applicability. Given the unstoppable pace of urbanization, specific theories based on the exact situation should be developed--thus serving the urbanites better.

Cities in China, especially the developing ones, tend to look at successfully developed cities as cases/examples. However, there are always differences between cities and cities. For instance, cities in central China are very different from Chinese coastal cities and minority autonomous regions. Coastal cities such as Shanghai and Guangzhou, have had much stronger communications with the outside world for a long time--which has left huge impacts on their culture and built environment. While the minority autonomous cities, like Wulumuqi and Lasa, have their unique policies, culture, even language, central Chinese cities represent the most authentic and mainstream Chinese culture.

The map illustrates the distribution of new towns in China since 1990. Major urban centers are labeled, including Beijing, Shanghai, Nanjing, Chengdu, Chongqing, Kunming, Fuzhou, and Zhangzhou. Surrounding these centers are numerous smaller towns and districts, many of which are marked with black dots indicating their establishment since 1990. The map also shows the PR Delta region. A legend in the bottom right corner explains the symbols used: a black dot for 'New towns since 1990' and a white circle for 'New towns before 1990'.

Figure 1.3 New towns in China since 1990. Author's diagram.

1.3 Chengdu in China

As Dwyer described in 1986:

Chengdu is the capital of Sichuan Province, with a history over 2000 years. Historically, Chengdu has existed as a marketing and administrative center serving what has traditionally been not only a relatively populous part of agricultural China but also one characterized by marked isolation. The Sichuan basin was separated by topography from the rest of China until the late 1930s when the new China was about to establish and transportation systems were developed more. Chengdu's development was therefore influenced from within for centuries due to its relative isolation (Dwyer 1986, 219).

Though contemporary Chengdu is characterized as a metropolis in China, its unique culture has been well preserved. As an interior city, Chengdu maintained a much more traditional culture than did the cities of the coastal and northern regions. This successful cultural preservation is a distinction that makes Chengdu especially interesting and significant to the historian. It represents the much more typical Chinese urban life (Wang 2003, 1).

In 2012, Chengdu is characterized as "Sichuan's Sichuan" by the Guardian (Webster 2012), and Time magazine once appraised Sichuan as "China's China" (Kelly 2005) for its preservation of tradition and culture. All of the above indicate that Chengdu is a modern city with a well preserved culture and unique character which makes it the miniature of China. Chengdu personifies the Sichuan province, which in turn personifies the entire country, making Chengdu the perfect city to study and analyze when discussing Chinese urban design, as it stands as an a great example of the central region of China, and even the entire country.

1.4 Kuanzhai in Chengdu Overview

Kuanzhai is a historic commercial district approximately 1.1 miles from the city center of Chengdu (*figure 1.4-1.5*). Though its location is adjacent to the city's urban core, its unique yet traditional style and atmosphere within the space provides people memorable experiences whether by passing by or engaging.

Kuanzhai consists of three parallel alleys with traditional courtyards in between, which are Kuan Alley, Zhai Alley and Jing Alley. The range is: north-Zhijishi Road; south-Jing Alley; east-Changshunshang Road and west-Tongren Road (Mi 2008).

Kuanzhai is the miniature of Chengdu--it illustrates how people in the city see it as well as how visitors define it. Moreover, Kuanzhai's individual success has won the notice of other

cities in China. Its methods of providing convivial urban spaces and preserving culture gains great attention of cities nearby. Some less developed cities near Chengdu, such as Guilin, are planning to replicate similar urban spaces, hoping to have success equivalent to Kuanzhai.

The key outcome for this thesis is a set of criteria towards advancing an alternative urban design model for Chengdu and other central Chinese cities. To achieve that, the thesis studies the western urban design theories to be aware of the theorists' methods and statements. Additionally, due to Kuanzhai's success and its relation to Chengdu, intensive study and analysis of this model are done--which would be introduced in later chapters. After the study of western theories and analysis of Kuanzhai, a comparison is conducted in order to find out the differences between them, and discover the shortcomings of western theories when applied to Chinese cities. Given those, specific criteria for an alternative model in central Chinese cities is advanced.

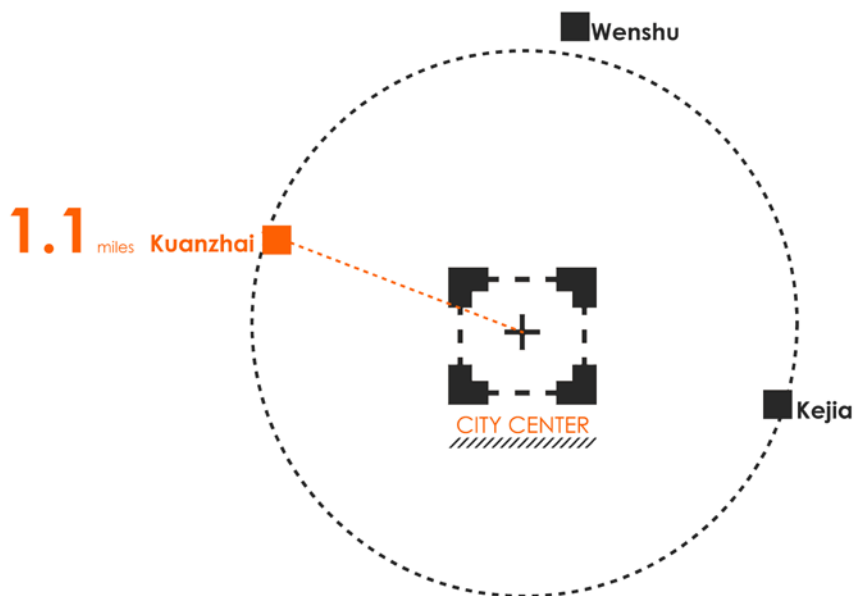


Figure 1.4 Kuanzhai's Location. Author's Diagram. Developed from Baidu Map.

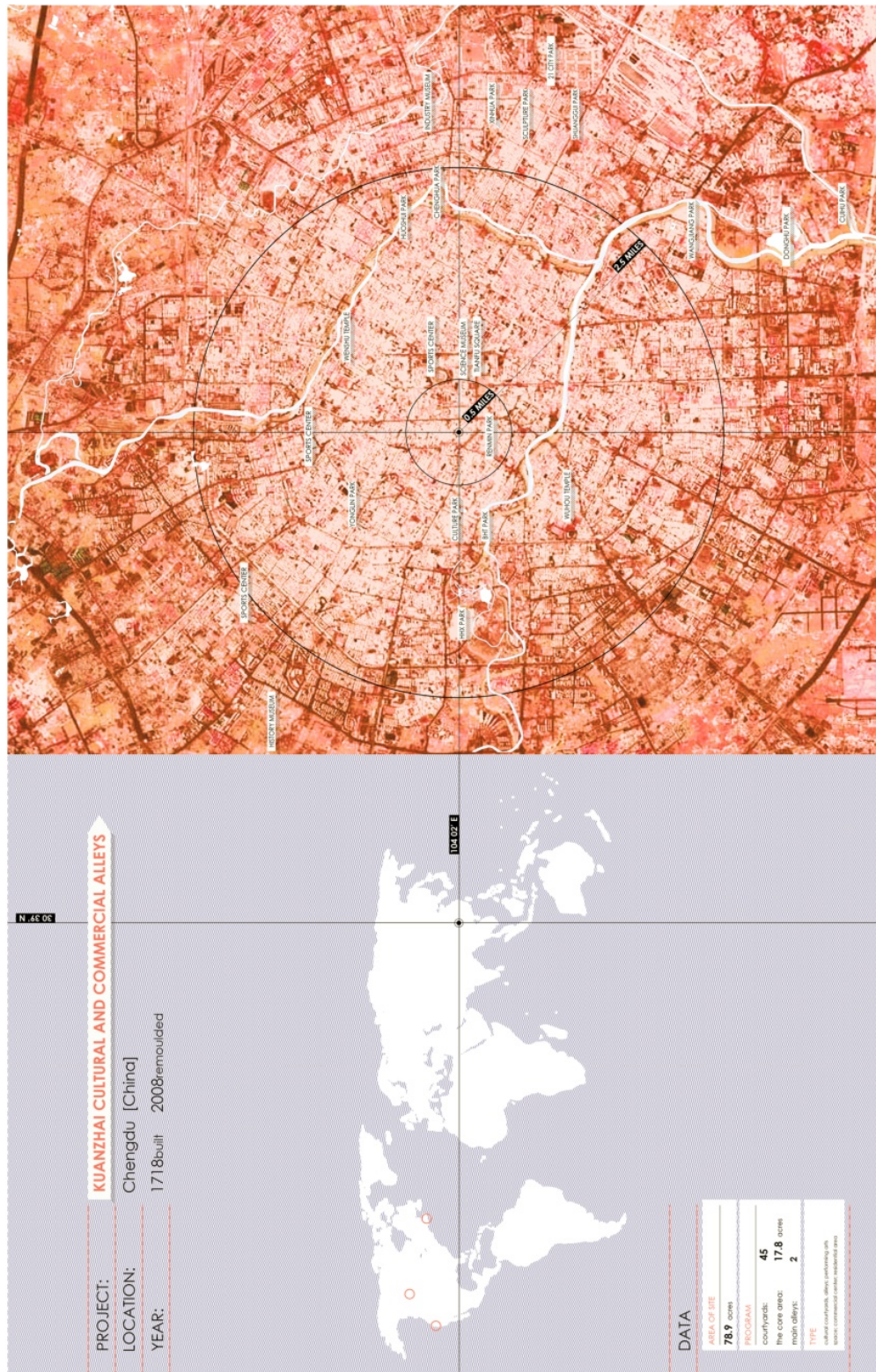


Figure 1.5 Figure Kuanzhai's Location. Author's Diagram. Developed from Baidu Map.

CHAPTER 2 METHODOLOGY

2.1 Literature Review

2.1.1 *Organized City: Theories by Kevin Lynch*

According to Lynch's most influential theory, five elements are indispensable to be studied in urban space. They are paths, edges, districts, nodes and landmarks. During the process of studying and analyzing Kuanzhai, those five factors are all utilized and integrated into larger categories (introduced in Chapter Three).

Paths are the channels along which the observer customarily, occasionally, or potentially moves. Edges are the linear elements not used or considered as paths by the observer; they are boundaries between two phases, linear breaks in continuity. Districts are the medium-to-large sections of the city, conceived of as having two-dimensional extent, which the observer mentally enters "inside of", and which are recognizable as having some common, identifying character. Nodes are points, the strategic spots in a city in which an observer can enter, and which are the intensive foci to and from which he is traveling. Landmarks are another type of point--reference points, but in some cases the observer does not enter them, and they remain external (Lynch 1960, 46-48). In the process of Kuanzhai's study and analysis, the five elements mentioned above are analyzed and compared later. As Lynch explained in his book:

People who knew the city best of all rely more upon small landmarks and less upon either regions or paths... special façade characteristics were also important for path identity... Where major paths lacked identity, or were easily confused one for the other, the entire city image was in difficulty (Lynch 1960, 49-52).

In Lynch's theory, being visible, coherent and clear are the modes of forming the new city world into an imageable landscape. There needs to be an intimate, visible linkage from fine details to the whole structure (*figure 2.1*). The form should be somewhat flexible, and plastic to the purposes and perceptions of the citizens.

If the goal is to make a more meaningful environment, a coincidence of association and imageability is necessary. Although the metropolis was no longer a rare phenomenon at the time he was writing, Lynch believed "nowhere in the world is there a metropolitan area with any strong visual character, any evident structure" (Lynch 1960, 94).

Above all, if the environment is visibly organized and sharply identified, then Lynch believed the citizen can inform it with his own meanings and connections. Then it will become a true place, remarkable and un-mistakable (Lynch 1960, 92).

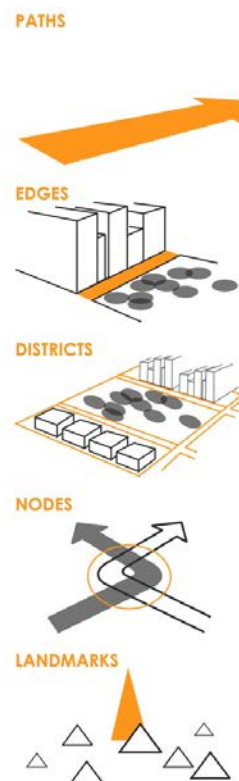


Figure 2.1 Lynch's Urban Design Theory. Author's Diagram. Developed from Diagrams in *The Image of the City* (47-48).

2.1.2 Livable City: Theories by Jane Jacobs

As Jane Jacobs explained in her work *The Life and Death of American Streets* (1961):

Monopolistic shopping centers and monumental cultural centers cloak, under the public relations hoohaw, the subtraction of commerce, and of culture too, from the intimate and casual life of cities (Jacobs 1961, 4).

Jacobs believes that cities are actually going through failure and success--it is an immense laboratory of trial and error both in city building and city design. Compared with that, what is missing in China is the process of "trial and error." Instead, in Chinese cities, it is more likely to use the existing western urban theories directly at a large and unprecedented scale. Jacobs also suggests that, however brilliant the urban designers are, there needs to be a process of trying and testing to figure out the theory for the exact place. How can people know what to try with traffic until they know how the city itself works, and what else it needs to do with its streets? Planners, architects of city design and related professions have gone to great pains to learn what the saints and sages of modern orthodox planning have said about how cities ought to work and how they ought to benefit the people and businesses within them (Jacobs 1961, 8). In western countries, based on Jacob's description of the theory establishment process, it is essential that theories need to be developed on the specific situation of the city. Such quality, is also indispensable in advancing the criteria of urban development model in central Chinese cities.

The general street atmosphere is teeming with life. Jacobs suggests that, buoyancy, friendliness and good health are always what people are looking for. Given that, three main

qualities of urban space are recommended by Jacobs: firstly, there must be a clear demarcation between what is public space and what is private space; secondly, eyes upon the streets are highly needed, the eyes belong to those we might call the natural proprietors of the street. Last but not least, the sidewalk must have users on it fairly continuously, both to add to the number of effective eyes on the street and to induce the people in buildings along the street to watch the sidewalks in sufficient numbers (Jacobs 1961, 9). Interestingly, Jacobs stated:

What should be emphasized is that, city planners and designers operate on the premise that people seek the sight of emptiness, obvious order and quiet--nothing could be less true (Jacobs 1961, 37).

The basic requisite for such proprietary surveillance, based on Jacobs's theory, is a substantial quantity of stores and other public places sprinkled along the sidewalks of a district; among them, enterprises and public places that are used by evening and night are especially necessary (Jacobs 1961, 36). When it comes to strangers, once a street is well equipped to handle strangers, once it has both a good effective demarcation between private and public spaces and has a basic supply of activities and eyes, the more strangers the merrier.

It is true that people in Chinese cities are also looking for buoyancy, friendliness and good health. But the qualities might not be the same with what she listed. One reason for Kuanzhai's success lies in its safety and effective occupation; however, there is no clear demarcation between private and public there. In that sense, there does exist some discrepancy between Jacobs's theories and Kuanzhai's qualities. This will be explained more in Chapter Four.

Above all, to generate exuberant diversity in city streets and districts, four conditions are indispensable according to Jacobs (*figure 2.2*): the district, and indeed as many of the internal parts as possible, must serve more than one primary function; preferably more than two. People with different schedules and different purposes going outdoors to the same place will make the place more successful. Which is to say, diverse people should be able to use many facilities in common. Most blocks must be short, which makes streets and opportunities to turn corners frequent. For the districts, buildings that vary in age and condition must be successfully intermingled, resulting in a variance in the economic yield produced. This intermingling must be fairly close-grained. This means that, units of different conditions and functions should be close to each other and evenly distributed as a whole. Moreover, there must be a sufficiently dense concentration of people, for whatever purposes they may be there. This also includes a dense concentration of local residents (Jacobs 1961, 150).



Figure 2.2 Jacob's Urban Design Theory. Author's Diagram.

2.1.3 Convivial Urban Space: Theories by Henry Shafstoe

Shafstoe believes that there is no single blueprint for a convivial space, but successful spaces do seem to share some common elements (Shafstoe 2008, 139). These may be broadly categorized under the headings of physical (including design and practical), geographical, managerial, and psychological and sensual (how the space affects our mind, spirit and senses). As with most attempts at categorization, there is some overlap as some elements may be listed

under more than one category; so in order to create some order out of an otherwise random list, the elements are categorized as follows (Shaftoe 2008, 139-141):

Physical:

- plenty of sitting places (not necessarily formal fixed benches);
- good quality and robust successful public spaces will get a lot of wear and tear.
Investing in high quality, durable materials will save money in the long term; being adaptable both for different uses and overtime;
- organic, incremental, fine grained development copes with the inevitable changes affecting public space and allows the space to continue thriving;
- asymmetrical, yet well proportioned--most successful public spaces are not completely rectilinear, often because they have grown and evolved in response to the topography and dynamics of the surrounding area;
- variety and intriguing details--this should comprise interesting landscaping including plants, shrubs and trees, and intriguing use of color and / or texture on built vertical surfaces;
- carefully considered and appropriate horizontal surface treatments--for both practical and aesthetic reasons (these are particularly important where there are changes in level, in order that no one should be disadvantaged by their physical ability or needs);
- not too large or too small.

Geographical:

- location
- generally public spaces work best when they are reasonably central, either in

a town or neighborhood, and are placed at the convergence of routes that people use for other purposes. They also work better when they are surrounded by mixed uses rather than monocultures;

- type of neighborhood and surrounding areas;
- clusters, sequences and strings of place;
- relation to transport--good public spaces will need to be easily accessible by all means of transport, but should not be dominated by their presence.

Managerial:

- diversity of use--people need a variety of reasons to gather and linger;
- promotion of a relaxed, round-the-clock culture
- the best management encourages a variety of people to be using the space at all times;
- inclusiveness--ideally everyone should feel welcomed in a good public space;
- well maintained and clean;
- vehicular circulation banned or tightly controlled;
- adequately lit;
- animation--there should be opportunities for plenty of human activities.

Psychological and sensual:

- human scale;
- individuality and uniqueness;
- feeling of safety;
- comfortable microclimate;
- visually satisfactory;

- incorporation of natural elements;
- acoustically pleasant;
- no bad smells; opportunities to eat and drink (*figure 2.3*).

Using Shaftoe's theories as a reference, less discrepancies are found in Kuanzhai compared with the theories by Lynch and Jacobs (*figure 2.4*). What Shaftoe has generated is more comprehensive and detailed. The categories developed in his theories have covered a wide range and are explained clearly. Moreover, his theories are among the most current design theories--which fit in the temporary situation better. In Chapter Four, when developing the specific criteria for Chengdu and other central Chinese cities, Shaftoe's methods are highly useful.



Figure 2.3 Shaftoe's Urban Design Theory. Author's Diagram.



Figure 2.4 Kuanzhai's Qualities Based on Shaftoe's Theory. Photo Credits to the Author. Author's Diagram.

2.2 Analytical Methods

The initial strategy for developing an urban development theory for central Chinese cities was to identify key ideas from the precedent western theories. The process of comparison generated five important elements, or factors, that could be specifically applied to central Chinese cities. These are: programs, time, people, space/ scale and materiality. In addition, those five help to reflect the quality of a place in a comprehensive way.

Programs:

the programs in a place can affect the composition of people who might go there and the activities they can have there, defining how the place could be used. The diversity of all the programs and the proportion of each can be adjusted based on the exact place.

Time:

time determines when people could be engaged in that place and how long they could plan their stay there. Based on the programs, time should be set accordingly.

People:

usually different people have different requirements towards programs and time. In urban design, people is an extremely important factor--because they make up the target audience that will be engaging the space.

Space/ scale:

the space and scale highly determine the general look of the place and people's feeling within the place.

Materiality:

last but not least, materiality is of great importance in urban design too. Surfaces, paving, vegetation, details like sitting, lights and many other physical aspects are included in this.

2.2.1 Physical Phenomena Methods

In terms of physical phenomena in Kuanzhai, this thesis investigates materiality, space/scale and context. Under the materiality category, several factors are investigated: paving, surfaces, sitting opportunities and vegetation. During the research process, photos of all the different paving types in Kuanzhai were collected and categorized. Types were classified according to color, texture, pattern and material. In the case of Kuanzhai, paving predominantly consists of traditional concrete bricks, therefore the colors of the paving is limited to primarily light gray with some darker variations to discourage monotonous paving. The diversified details of the paving create an intriguing atmosphere.

The same process can be applied to the category of surface. During the research phase, photos of each façade are taken and used for comparison and study. Each alley has two collections of façade photos--for both sides of the alley. The finding is that surfaces have limited types of materials, mainly wood and gray bricks. Similar to the paving, such a limited set of the material palette gives Kuanzhai visual cohesion and an identity as a whole while allowing for the proportions and forms of the set materials to be manipulated based on function and context. This makes the Kuanzhai district a place that provides multiple experiences for visitors passing through it. Additionally, the sitting opportunities in Kuanzhai are sufficient and diversified. For this study, a record was made of all the typical and conventional seats in open space; the outdoor structures; and the seating in semi-open areas and indoor space. For

unconventional structures that are used by people for sitting, the observations are taken four times a day--8:00 to 10:00; 12:00 to 14:00; 16:00 to 18:00 and 20:00 to 22:00. Two days a month (one weekday and one weekend day). The months of February, May, August, and November were selected because each one of them are in different seasons. The information about indoor sitting opportunities is collected by checking Kuanzhai's official website. The result of the study indicated that Kuanzhai offers ample and diverse seating, both indoor and outdoor.

The selection of vegetation in Kuanzhai was also found to be successful. The plants were analyzed in all three alleys according to height. After the identification of the main species, the habits and features are looked up in *Flora of China* (<http://frps.eflora.cn/>). In terms of seasons, these species of plants cover four seasons of the year--which guarantees that Kuanzhai has green coverage all the year around. The plants also occupy the space in different ways. For example, there are both ground cover and vertical cover vines; short-height shrubs and grass; middle-height shrubs and trees; and huge trees. This variation provides a three-dimensional green space. The color palette of the plants is diversified as well. Instead of monotonous green, the selected plants either have flowers, fruits or leaves that are in colors besides green. They each have aesthetic value and together they create an intriguing color palette. Most of them are native species.

To study the space/ scale, a digital model was created for detailed research. On a larger scale, the arrangement of alleys, open spaces, semi-open spaces and enclosed spaces are analyzed. In order to have a deeper understanding of the space, each unit and courtyard are recorded and divided into five categories based on their openness for further analysis.

During the context research process, Baidu Map and the map with surrounding

information (in Kuangzhai's official website <http://www.kzxz.com.cn/map.html>) are examined.

Baidu Map is the most authoritative and comprehensive digital map system in China. They provide the information of surrounding transportation means and land uses.

2.2.2 Economic Phenomena Methods

To study the economic phenomena in Kuangzhai, a thorough analysis is performed on all the units in Kuangzhai district. Programs and time were the main study objects in this part. The location and arrangement of the units were posted on Kuangzhai's official website:

<http://www.kzxz.com.cn/map.html>. There are four main types of units: restaurants, bars/ tea houses, gift shops and places to stay--two inns and two residential houses.

Information of open hours in all the units is collected in Dianping (<http://www.dianping.com/citylist>). In terms of eateries, this thesis presents the average cost and the distribution for each unit. The location of all the restaurants are tracked via the official website. In the analysis all the units are divided into five categories based on the average cost: below 20 dollars, 20-39 dollars, 39-59 dollars, 59-79 dollars and 79-98 dollars per person. As a whole, their average costs have a wide range--from 1 dollar to 98 dollars per person, which strongly ensures a wide group of users in this space. The result is that the majority--50% of them--are in the "below 20 dollars per person" category. And together with the "20-39 dollars per person restaurants" category, their proportion is 75%, which guarantees the accessibility of people with different incomes. Among the thirty-two restaurants, only two are at the highest end. Moreover, the spatial distribution of all restaurants is very even, which promotes an even distribution of people and enhances accessibility to a wide range of people.

2.2.3 Social or Cultural Phenomena Methods

In this study, the activities in Kuanzhai are investigated and recorded to the greatest extent. The people factor is the main study object here. There are three main categories of activities distinguished by their frequency: daily, monthly and yearly. For the big events that are held once a year, Kuanzhai's official website has detailed information about the content, time, location and means to participate. They have the most meaningful impact of the different types of activities. Instead of happening at the same time of the year, the big events are scattered at different times of the year: March (spring); June to September (summer) and every new year (winter), keeping Kuanzhai vital year round. Less formal events and activities are held every month, as advertised by event brochures and posters available at the entrances to Kuanzhai. Both the local shopkeepers and the Kuanzhai office confirmed that independent markets are active on a daily basis. All these events and activities are hosted in the open space of Kuanzhai ensuring equal accessibility for the diverse public.

Kuanzhai infuses the events with traditional elements and local culture by taking advantage of the popularity of both the activities and the space. The exact modality is accorded to the target audience and participants. For instance, in September of 2013, Kuanzhai held traditional interactive lantern riddle activities, reminding the younger generation of respect to the traditional Mid-Autumn Festival.

Regarding another factor under the category of materiality, the surface of Kuanzhai also has social and cultural value. To prove this, the thesis has recorded all the surfaces that have the interaction value and are being occupied by people. Observations are made 24 times: twice each month, one in workday and the other in weekday-evening time, it would last no less than 2

hours. For some part of it, the surfaces are designed to provide interactive opportunities. Such interactive overlay offers people more ways to engage in this space; however, the surfaces in Kuanzhai were specifically designed to relate to the daily lives of locals while referencing specific cultural points in the past. This appeals to both the older and younger generations. The older age group finds resonance and meaning through remembrance while the younger group indirectly learns about the local culture.

The study and analysis of Kuanzhai is established by three means: firstly, study western urban design theories and compare them with Kuanzhai's qualities at the same time. Secondly, investigate the five elements--people, time, space/scale, programs and materiality by visiting the site. Lastly, strengthen the on-site research with useful official online information.

CHAPTER 3 STUDY OF WESTERN URBAN DESIGN THEORIES AS A COMPARISON

As for the East, by indiscriminately gulping a frightful mass of Western indigestibles, it gained little but a cultural stomachache" (Wildes 1958, 27).

Urban design frameworks cannot be easily or directly applied to just any urban context. It must be tailored to each individual city. Based on Sherban Cantacuzino's *Urban Design in Context*, "the separation of urban design and its isolation from the wider process of planning can only have a negative effect on today's urban spaces" (Cantacuzino 1996, 258). Urban design is an integral part of architecture and must be considered, "especially in cases in which the architect of the building is not the same as the architect of the space between". It is an opportunity to extend the coherence and order of the surrounding buildings to the public and quasi-public space between the buildings; and it is a way of improving the setting of the building (Cantacuzino 1996, 258).

In most western countries, urban design is results from how theory and the shape of cities have coevolved over time. As Cantacuzino described:

In Amsterdam in the seventeenth century, it was economic and functional considerations that largely determined what people would now call urban design. The central strip formed the road and was paved with clinker bricks laid in a herringbone pattern. In London the creation of beautiful streets and squares became fragmentary after the extensive Georgian and regency developments. The design behind Paris became a comprehensive activity under the Second Empire and after, and has become an easily recognizable image worldwide. A characteristic of Haussmann's new streets was the

wide pavement which welcomed the pedestrian and encouraged street life (Cantacuzino 1996, 259).

There was plenty of room for the trees with their cast-iron gratings, the benches and light standards, the cylindrical newspaper kiosks and poster stands, the drinking fountains and public conveniences. Later on, Metro entrances, bus shelters and telephone boxes were easily introduced into the space. Above all there was plenty of room in the cafés, restaurants and shops to extend their activities far out over the pavement. Most of this street furniture, the design of which dates from the time of Haussmann, or Alphand, is in use today, still contributing powerfully to the popular image of the Paris street (Cantacuzino 1996, 258-260).

There are numerous examples of failure in directly applying western urban design into Chinese cities. Hangzhou, as a big city in Zhejiang Province in China, has devoted space to an unsuccessful replica of Paris (*figure 3.1*). Tianducheng is modeled on the capital city of Paris. It comes complete with a 354-foot replica of the Eiffel Tower (the real Tower is actually about three times as high) and a fountain inspired by the famous fountain in the gardens of the Palace of Versailles. “The development began in 2007 but the city remains something of a ghost town with only about 2,000 residents, when 10,000 were planned for, and is symptomatic of a large property bubble. Rather than becoming a thriving residential area, it is today little more than a venue that newlyweds like to visit for photographs”, said Johnson, who has worked in the travel industry for approximately 20 years (Johnson 2013, n.p.).

China has embarked on a countrywide "duplitecture" binge--constructing massive communities that replicate the cities of Europe and the United States (Bosker 2014). Similarly, in one of Ruth Morris's reports in *The World*, it highlighted: “Almost every Chinese major city

has a residential suburb where people live in replica mansions (*figure 3.2*), and as many as two-thirds of the properties for sale with some estate agents are Western-style” (Morris 2013, n.p.).



Figure 3.1 Fake Paris in Tianducheng, China.

<http://www.aluxurytravelblog.com/wp-content/uploads/2013/10/Paris-China-2.jpg>. [2013].



Figure 3.2 Replica Mansions in China.

http://news.bbcimg.co.uk/media/images/68420000/jpg/_68420187_compositeforshow.jpg. [2013].

Indeed, China has its own rich architectural heritage, like the Classical Gardens of Suzhou (*figure 3.3*), the Forbidden City in Beijing, and the country's traditional wooden buildings. Chinese people value this history a lot, however, at a time of such rapid change, people find it more practical--and time saving--to copy Western styles and directly apply western theories. It is a very specific period of time--people cannot get accustomed to the changing times, making it understandable that they would follow something that they admire, or are familiar with from the mass media. But it is not the method that should be taken to make a successful urban space.



Figure 3.3 The Classical Garden in Suzhou.

[http:// news.bbcimg. co. uk/media/images/68474000/jpg/_68474771_thinkstock](http://news.bbcimg.co.uk/media/images/68474000/jpg/_68474771_thinkstock). [2013].

CHAPTER 4 OUTCOMES OF KUANZHAI ANALYSIS

4.1 History

The historical alleys that make up Kuanzhai have been preserved in Chengdu since the Tsing Dynasty (*figure 4.1*). Together with Daci Temple and Wenshu Temple, Kuanzhai is the heart of the historical and cultural preservation district.

In Kangxi 57th, which is 1718, Zhunger invaded Tibet. The Tsing government sent 3,000 soldiers to fight against Zhunger. After that, around 1,000 soldiers were commanded to permanently occupy Chengdu. The same year, the Tsing government built Man City in the west part of the city. But since it is built on the relics of Shao City from an earlier dynasty, most people still call it "Shao City".

According to historical records, Man City is a "city in the city" built for eight-flag soldiers (the number of flags shows their status) and their families. At that time, it has 8 official streets and 33 alleys in total. However, in 1911, the Xinhai Revolution brought on the end of the Tsing government. The eight-flag soldiers that had been living in Shao City were all dismissed and Shao City vanished. Kuanzhai, however, is all that is left of Shao City today (Dong and Guo 2011, 36).

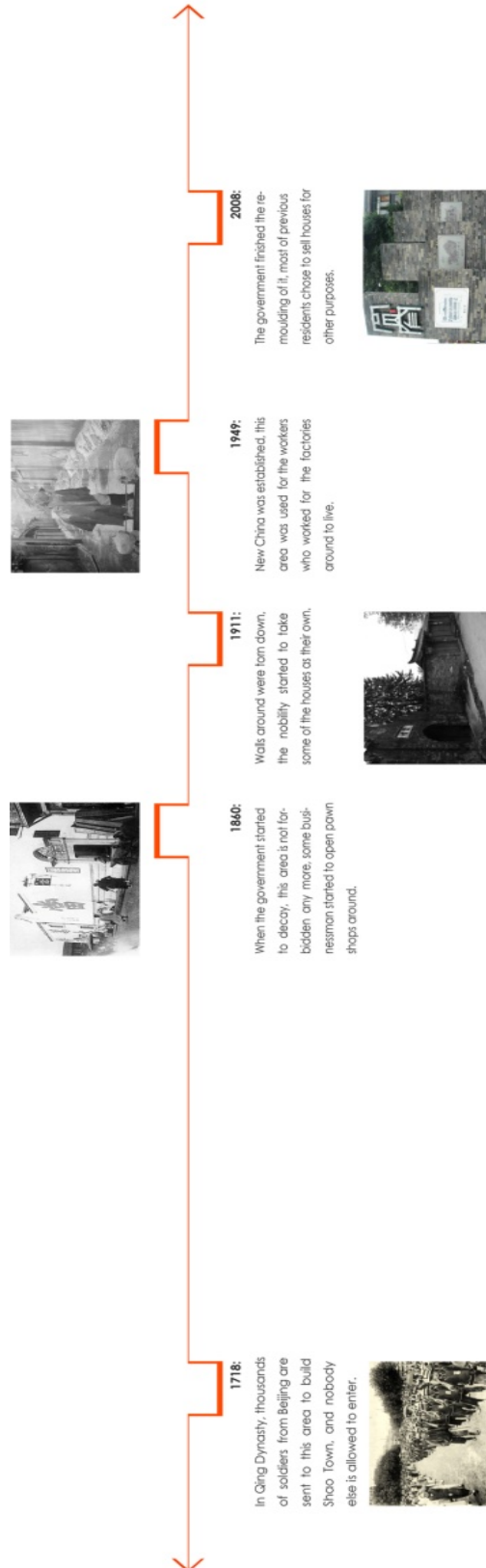


Figure 4.1 Kuangzhai's Timeline. Credits to Kuangzhai Administration Center. Author's Diagram.

4.2 Relation to Chengdu

As introduced in Chapter One, Chengdu is a city characterized by *the Guardian* (one of the most influential news media in Britain) as "Sichuan's Sichuan"(Webster 2012) for its representativeness in culture and tradition. And interestingly, *Time Magazine* has once appraised Sichuan as "China's China" (Kelly 2005). Both of them have indicated the value of using Chengdu as the target place to study. Besides, the effectiveness of applying Chengdu's criteria to other central Chinese cities has been proven.

Kuanzhai, as a commercial and historical district near the city center, is often referred to as "the miniature of Chengdu's tradition and culture". Even in such an urban setting with close location to the city center, Kuanzhai maintains the local tradition and culture, attracting urbanites of various ages, classes and purposes.

4.3 Elements of Kuanzhai's Vitality

4.3.1 Programs

The programs of Kuanzhai can be mainly generalized into four categories. They are: dining; watching/ drinking; shopping/ enjoying and living/ staying (*figure 4.2*). All the programs have been deliberately designed and planned to produce resonance with the traditional lifestyle of the people of Chengdu. In Di Wang's work, *Street Culture in Chengdu* (2003), several chapters are devoted to covering this.

Back in the 1920s, most teahouses were located in prosperous commercial areas and people used teahouses as entertainment centers. They were the best places for a diverse assortment of performers to make a living. The early theaters in Chengdu were actually founded in tea houses. In Chengdu teahouses, the tea settings and furniture highlighted the

unique local culture (Wang, 2003, 48). From the records about teahouses, they played a paramount role in the lives of urbanites. This is still true today. Kuanzhai has perfectly preserved this culture and a large number of teahouses are built there because the locals enjoy the lifestyle that the teahouses represent. With the development of the city and the increase of the people's diversity in preferences, this program has increased its own diversity too.

Some teahouses are very traditional and are exactly like those in the old time. Some unconventional teahouses were also developed in Kuanzhai to meet the needs of the younger generation and people from other places. More types of performances and art have emerged in the teahouses, giving people more reasons to stay there. In this sense, Kuanzhai's visitor number is increased.

In terms of dining, Kuanzhai is home to a large portion of the restaurants in Chengdu. Among all the restaurants, 95% are Chinese restaurants. In this 95%, 16% are very local restaurants in order to preserve local culture. Since Chengdu is becoming more and more open to the world, the remaining 5% are western cuisine. In the Chinese restaurants, especially those focusing on local foods, shows and performances are integrated into the dining space. Local people enjoy this style of dining and it helps people from other places to know the local culture better. In general, it provides pleasant opportunities to eat.

It is also true for the "watching/ drinking" portion. Teahouses hold a larger percentage than cafés. As mentioned above, preserving and developing teahouses is a locally-oriented strategy which makes Kuanzhai a place that stands out among the others. As with a lot of restaurants and teahouses in Kuanzhai, traditional performances and shows are featured in cafés and bars as well.

Since Kuangzhai is located just outside the city center and surrounded by many hotels/ inns, overnight accommodations are limited in Kuangzhai. This is situation-based and makes this place more efficient in terms of serving people.

The second largest program in Kuangzhai is "shopping/ enjoying". As a commercial district, it is reasonable to have a large number of shops and the diversity of these shops helps this place to attract more people. Shops range from small jewelry stores and classic yet small bookstores to high-end art craft shops. Most of the shops are very unique--people can seldom find the same shops elsewhere. It is a great way to protect and preserve the local small businesses from the impact of increasingly prevalent chain stores. Art is integrated in most of the shops, which makes shopping more fun, especially for window shoppers.

As illustrated by Kuangzhai District, the urban space should contribute to a deeper understanding of the local people and their everyday lives. The programs and events held in Kuangzhai not only persuade the locals to spend time in the urban space, but also aid in the preservation of local culture.

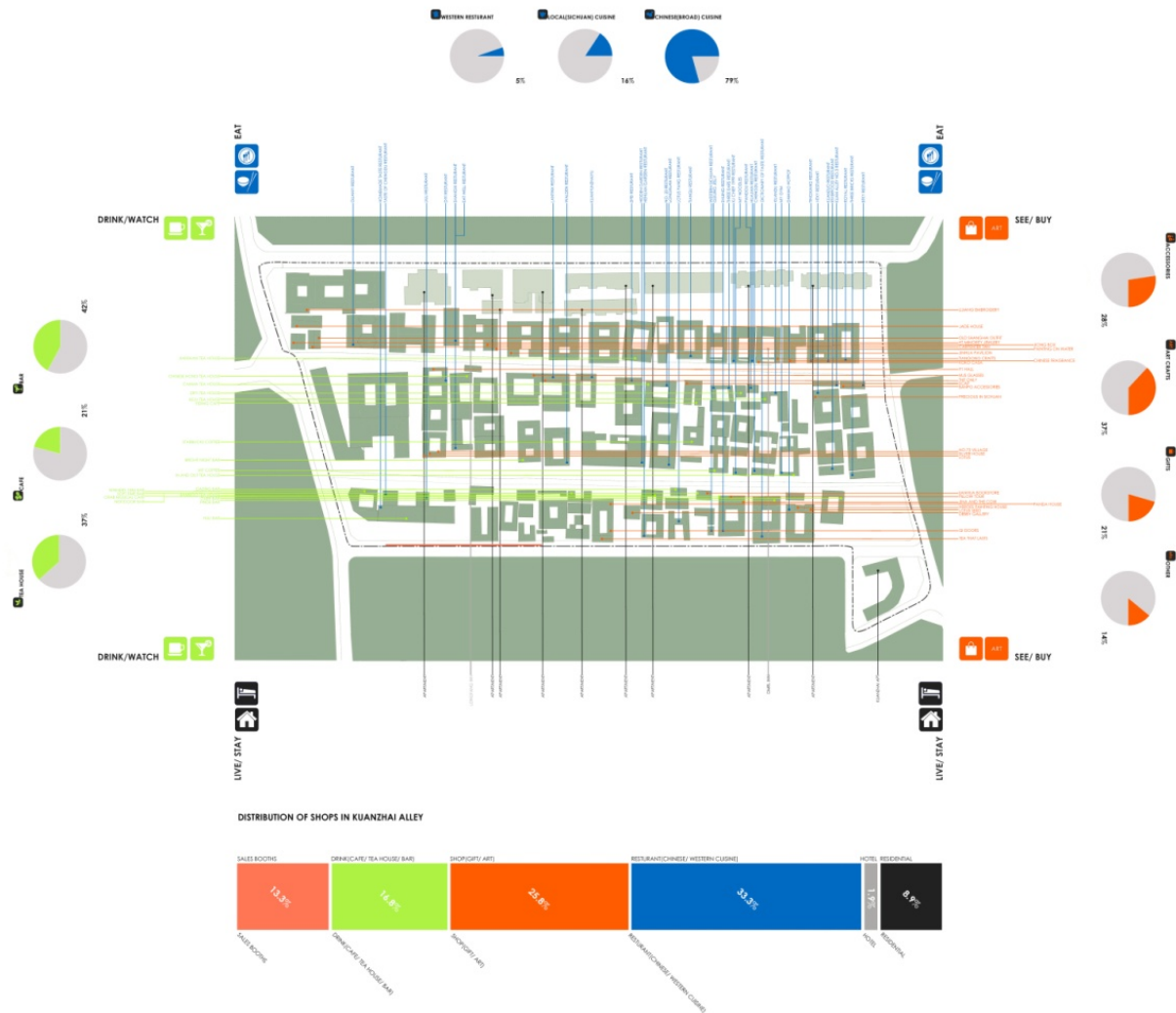


Figure 4.2 Programs in Kuanzhai. Author's Diagram.

4.3.2 Time

In Kuanzhai, time periods for events that enhance the impact of vendors, shops, and restaurants are successfully arranged daily, monthly and yearly (*figure 4.3, 4.4*). For the opening time (during which people can occupy the space), there are spaces available for people 24-hour a day, seven days a week, increasing the possible times of activities of the space. Different types of business can mostly be found at the same time. Given that, different groups of people are likely to gather in that place during the same time. The long open hours, together with the

diversified programs (which is introduced above), serves a wide range of people in the city.

“Urban public space was an appropriate place for ritual ceremonies, usually street performances, that powerfully expressed in local culture and attracted huge audiences”, stated Di Wang (Wang 2003, 49). In the open space there, small activities could be found daily. To a larger scope, activities like tea parties, informal speeches, traditional instrumental performances and shows are held in Kuanzhai regularly and periodically, be it monthly or yearly. Above all, different groups of people are able to engage with this space throughout the day and can attend free outdoor activities, daily, monthly or yearly.

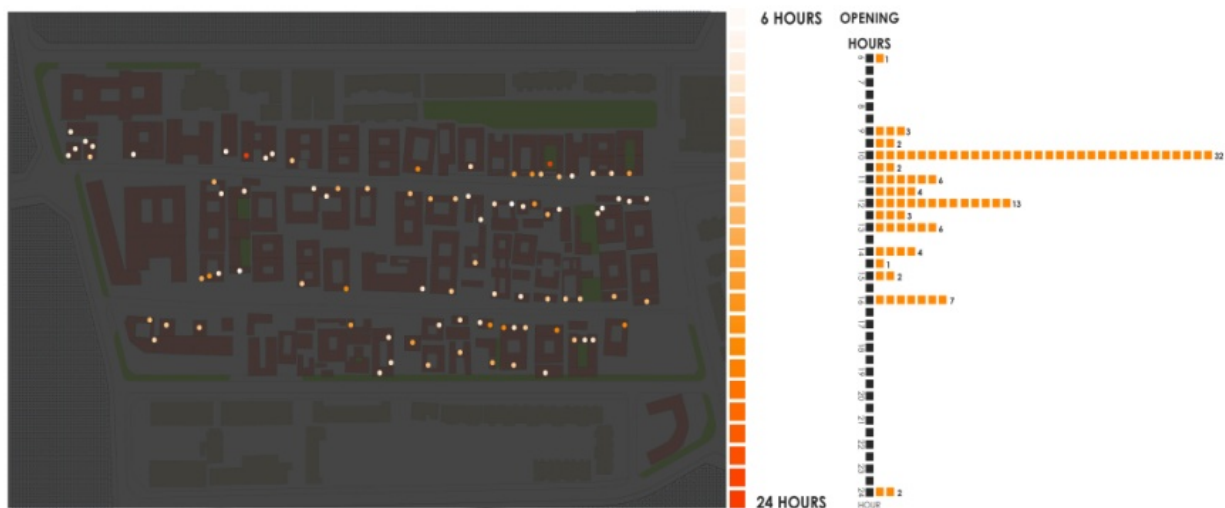


Figure 4.3 Opening Hours in Kuanzhai. Author's Diagram.

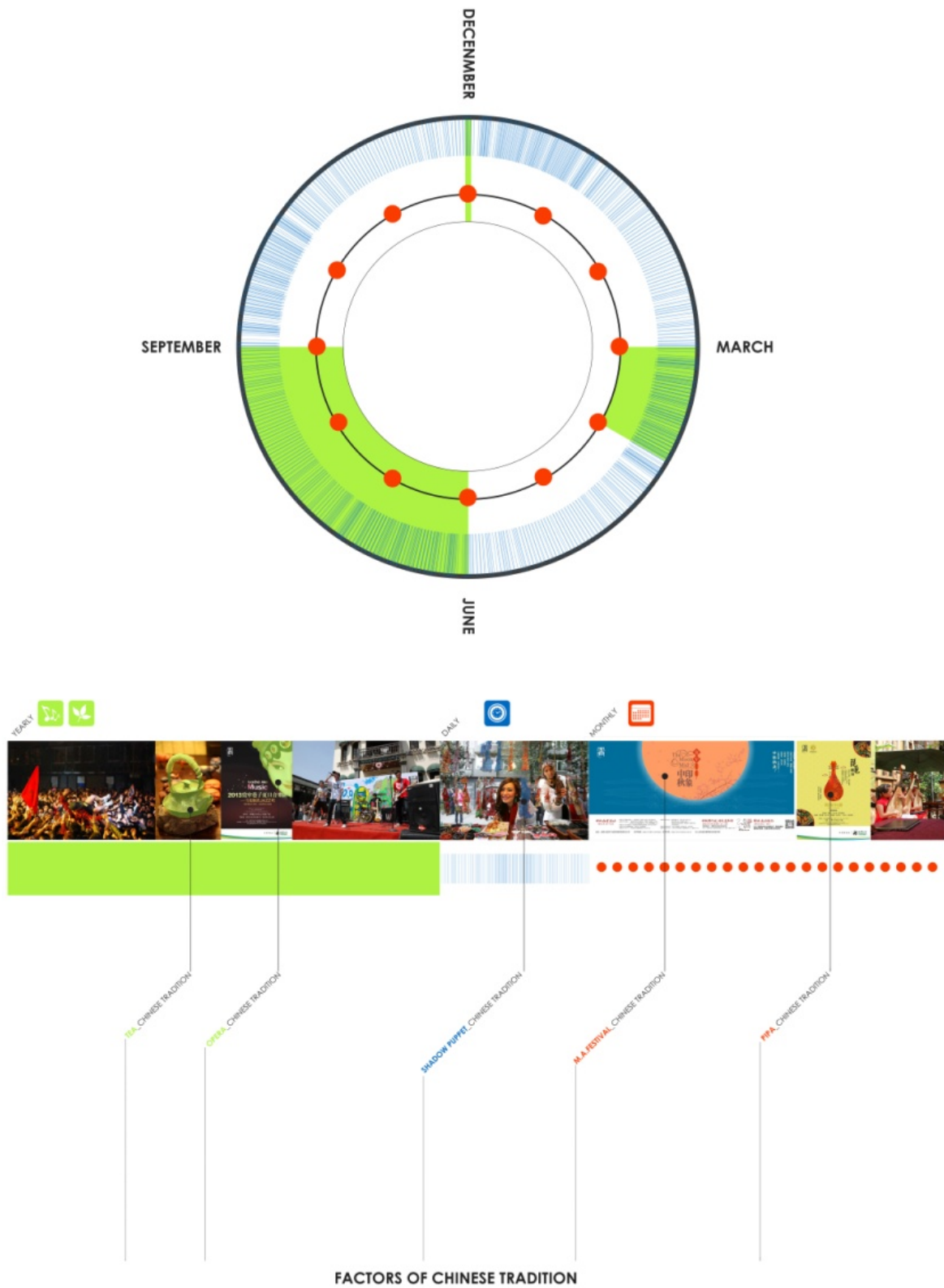


Figure 4.4 Time of Outdoor Activities in Kuanzhai. Author's Diagram.

4.3.3 People

The lack of centralized and coherent urban plans before the early twentieth century in China led to a local autonomy that made urban public space equally accessible to the members of all social classes.

Such phenomenon is nearly non-existent in today's China due to development and the direct usage of western theories through central authorities. However, Kuanzhai, even in today's Chengdu, still illustrates the local tradition. It is a place suitable for people of all incomes and classes to enjoy. The cost of various restaurants in Kuanzhai has a wide range, prompting people with different consumption levels to all come to the same place and engage with one another as well as the space (*figure 4.5*). Additionally, a large portion of the restaurants are designed for the middle-class and people of lower income. Restaurants with differing prices are evenly scattered throughout this space, in order to prevent economic segregation.

Generally, each of the three alleys of Kuanzhai is oriented towards people of specific ages and needs (*figure 4.6*). The first alley, Kuan Alley, is targeted at the older group and people who seek Chengdu's traditional lifestyle. In that sense, this alley serves as the sample of life in this old city because of its precise preservation of local culture and tradition. Zhai Alley targets and attracts younger people and those who want to see the integration of the new and the traditional. New elements are flawlessly streamlined alongside traditional elements. Programs in Zhai Alley also feature more modern elements compared to those in Kuan Alley. People find this cultural 'remix' interesting and enjoyable. Jing Alley, the third and final alley of Kuanzhai, is for everyone. Compared with previous two, it has more open space and usually outdoor

activities are held there. The "i-market" in Kuanzhai, is where vendors sell small art crafts, local snacks and local musical instruments at very reasonable prices--attracts many people.

DISTRIBUTION OF VARIOUS CONSUMPTION

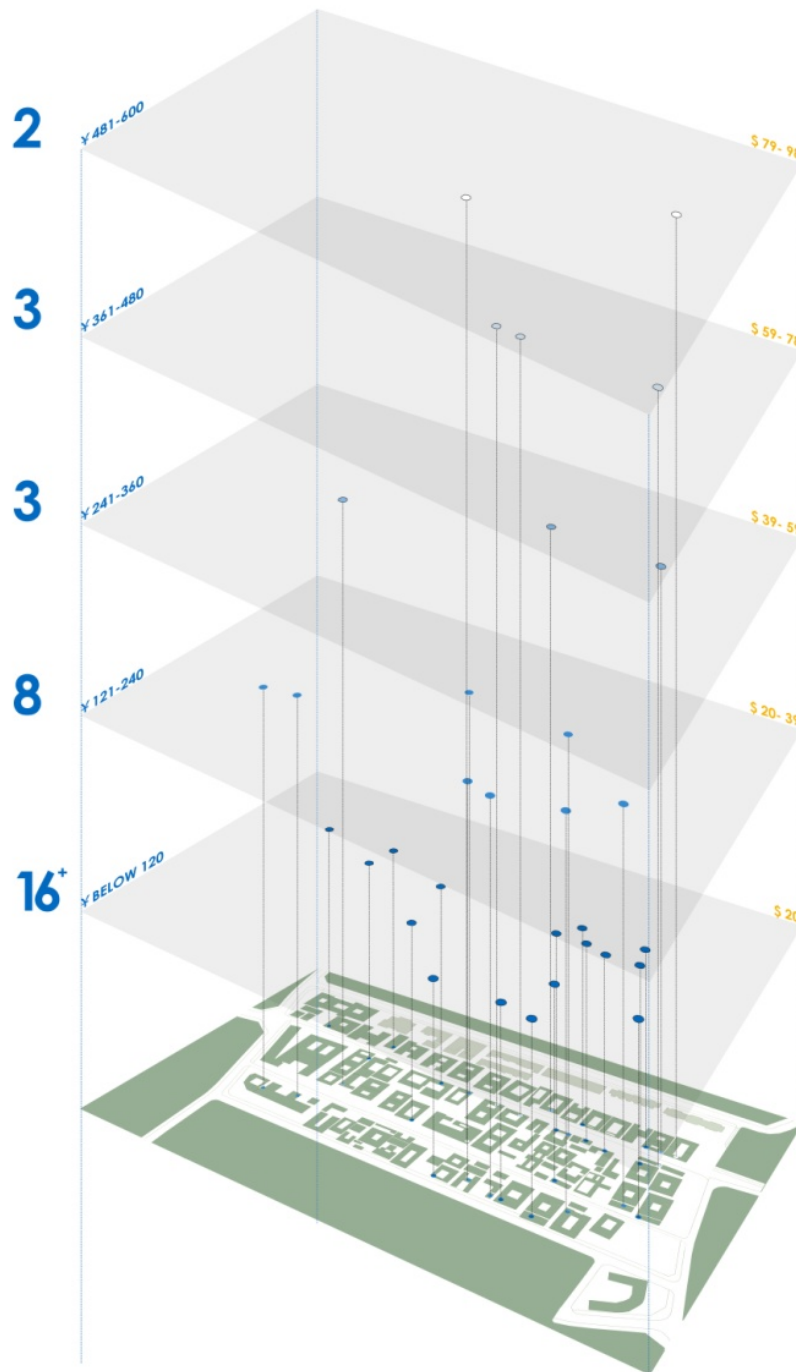


Figure 4.5 Distribution and Proportion of Restaurants with Different Prices. Author's Diagram.



Figure 4.6 Main Target of Each Alley. Author's Diagram.

4.3.4 Space/ Scale

Di Wang has stated that, in Chengdu, "Waiters or patrons were free to move tables and chairs onto the sidewalks, where pedestrians and street activities provided entertainment and fodder for conversation" (Wang 2003, 47-48). Traditionally, in Chengdu people prefer a soft buffer between private and public. In Wang's book, he described people's life of Chengdu back in the 1920s, when their way of life had left impacts on people in today's Chengdu. It has all sorts of description about people's life on the streets and what has been valued by them. The conclusion is people in Chengdu have less sense of demarcation between classes. In most cases it is the mingling of private and public makes successful spaces in the city of Chengdu. Even for today's people in this city, they still like the soft buffer between private and public, and are uncomfortable with the "zoning" between different classes. This contradicts Jane Jacobs's

design theory that there must be a demarcation between private and public (refer to Chapter Two, *Livable City: Theories* by Jane Jacobs 1961, 40). Kuanzhai's success has perfectly proven Di Wang's theory. One significance of this district is that people are able to choose from private, semi-public and public space. Diverse types of courtyards are very important here (*figure 4.7*).

By changing the arrangement of the houses, courtyards with different levels of openness are established. Such variety and diversity of openness makes it possible to host various programs and meet people's different needs. If analyzing the space by alleys, Kuan Alley has a larger proportion of enclosed space, better suited to the needs of the older age group drawn to Kuan Alley. Zhai Alley is more open, which caters better to a younger crowd. Jing Alley, however, is the most open of the alleys because lots of outdoor activities are held there. But Jing Alley also has a number of enclosed spaces, allowing visitors to choose the level of privacy they feel is appropriate for any given need.

Based on Lynch's theory, a visual hierarchy of streets and ways is important in urban design; clarity of direction is needed in the line of motion. A structure of paths must have a certain simplicity of form to make a clear image (Lynch 1960, 76). Kuanzhai meets part of the qualities listed by Lynch--visual hierarchy of streets and simplicity of path structure. Moreover, for each alley, there are always easy and convenient connections to make sure of each alley's accessibility. However, the clarity of direction is not that encouraged in Kuanzhai--nor even in Chengdu and other central Chinese cities. These differences are discussed in Chapter Four.

In Kuanzhai, there is a variety of "inside-outside" conditions. When the edge is not continuous and self-closing, its ends have definite termini with recognizable anchors that complete and locate the line (*figure 4.7-4.9*).



Figure 4.7 Openness and Function of Different Courtyards Along the Alleys. Author's Diagram.

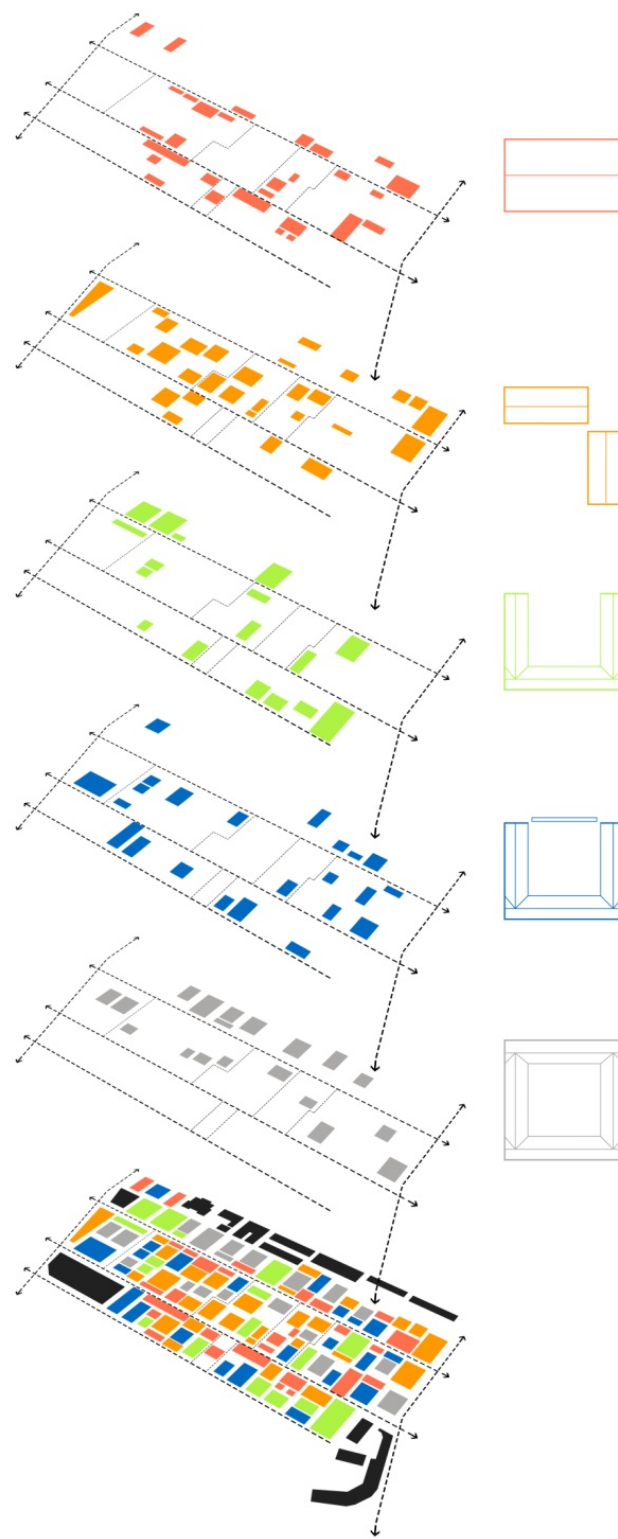


Figure 4.8 Distribution of Different Types of Courtyards in Kuanzhai. Author's Diagram.

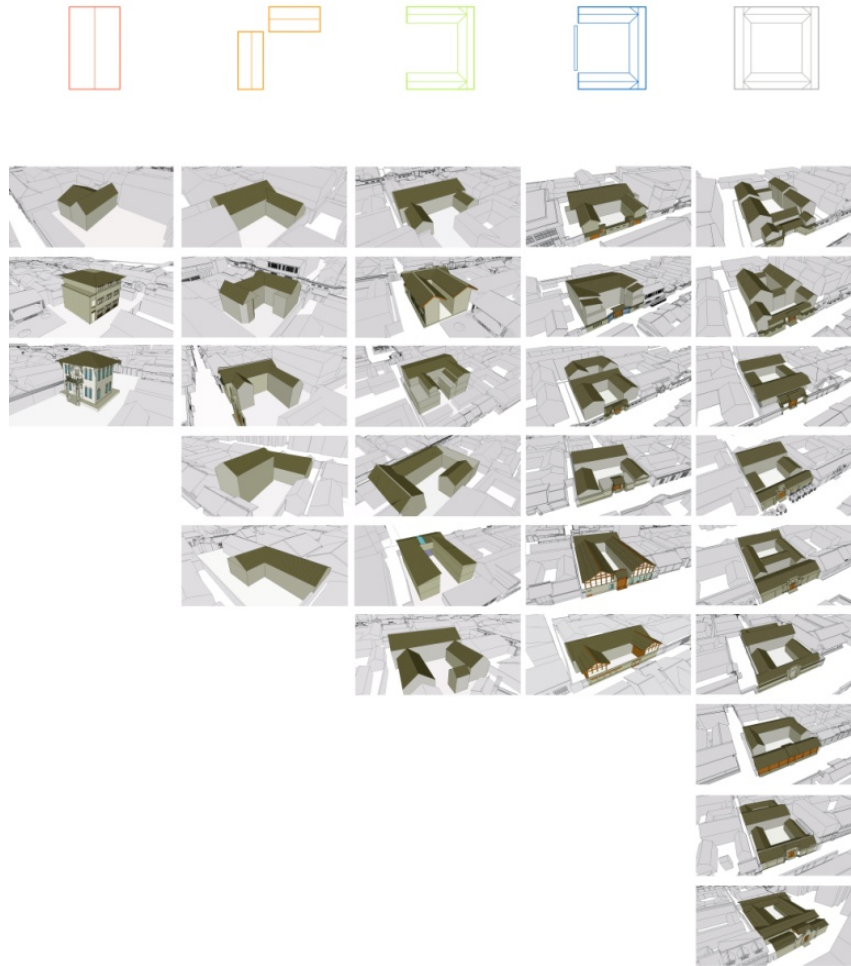


Figure 4.9 Different Degrees of Openness in Kuanzhai and the Forms of Each. Author's Diagram.

4.3.5 Materiality

In *The Image of The City*, Lynch (1960) has generalized that:

The key lines should have some singular quality which marks them off from the surrounding channels: a concentration of some special use or activity along their margins, a characteristic spatial quality, a special texture of the floor or a façade, a particular lightning pattern, a unique set of smells or sounds, a typical detail or mode of planting (Lynch 1960, 176).

A city distinct in its simplest sense is an area of homogeneous character, recognized by clues which are continuous throughout the district and discontinuous elsewhere. Even though Kuanzhai is quite close to the city center, the materials and the patterns are totally different from those of the city center, bringing a new and different perspective to people engaging the space (*figure 4.10*). The identity of the singular and continuous quality of the walls, flowers, detail, lightening vegetation, topography and skyline of the nodes makes Kuanzhai a popular place for people in the city, and satisfies what As Lynch expressed in his theory-"a distinct, unforgettable place, not to be confused with any other" (Lynch 1960, 102).

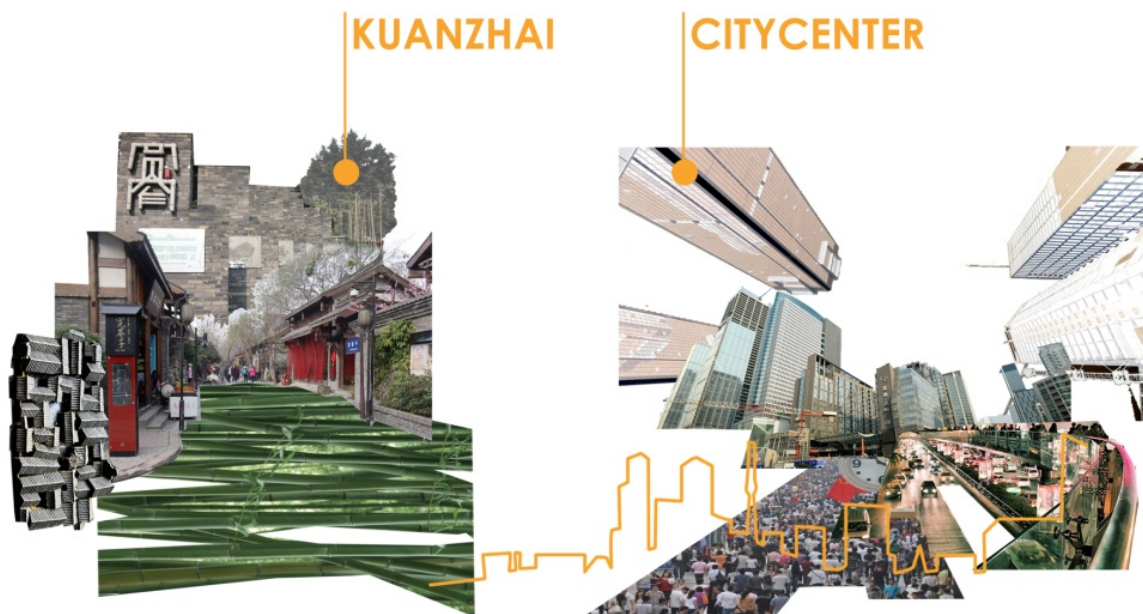


Figure 4.10 The Comparison of Elements in Kuanzhi and City Center. Author's Diagram.

"Homogeneity" contributes greatly to the identity of the place, regardless of its spatial characteristics, continuity of color, texture, material, paving surface scale, façade detail, lighting, planting or silhouette (*figure 4.11-4.13*).

The paving materials of Kuanzhai are quite unified compared with the districts nearby,

despite the changes in patterns. Kuanzhai's surfaces are all well designed; for example, some of the surfaces have the possibility of interaction and the permeability changes throughout the alley. It is high at both ends and lower in the middle. There are various types of seating, which makes it easier to stay longer. Different objects are used to create surfaces with diversified permeability--most of them represent the local culture and history. For doors and other parts of the façade, the types of materials are limited, but each unit differentiates from the others by changing the proportion of the materials. Additionally, the forms of the details are different as well. Most of the vegetation places aesthetic value on flowers, fruits, leaves or on the impact of the vegetation as a whole, which diversifies the vegetation color palette from monotonous green. Moreover, facilities are deliberately designed as well. Lights with local traditional elements are well arranged in this place which brings uniqueness to each zone-even to each unit.

Public art also holds a well-established presence in Kuanzhai's public space. Historically, this had been in the form of monuments, usually designed to commemorate some great event or famous person. This triumphalist approach has, in the last few decades, been increasingly replaced by a more populist and often witty type of art. Usually this will consist of a study sculpture or mural (Shaftoe 2008, 133; Lennard 1995).

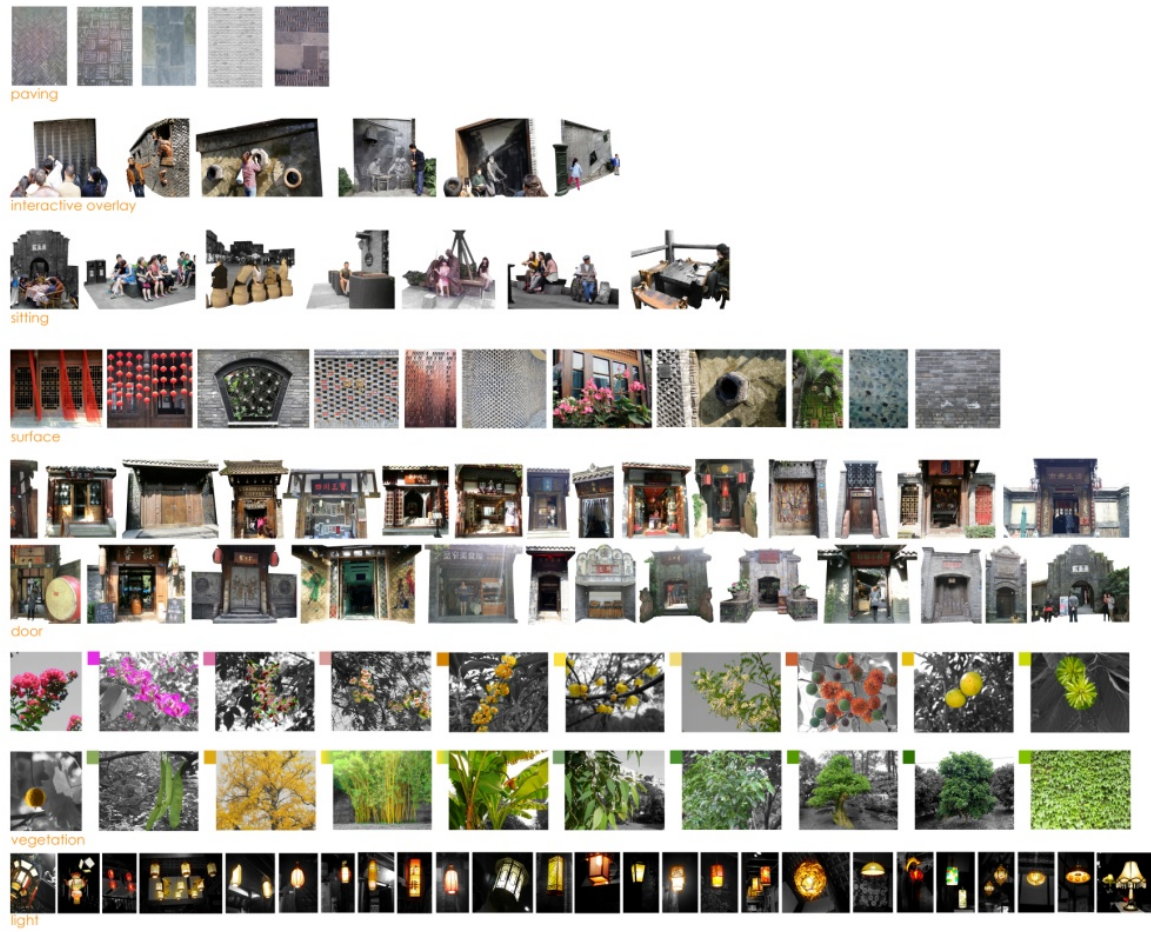


Figure 4.11 The Matrix of Materiality in Kuanzhai. Photo Credits to the Author. Author's Diagram.

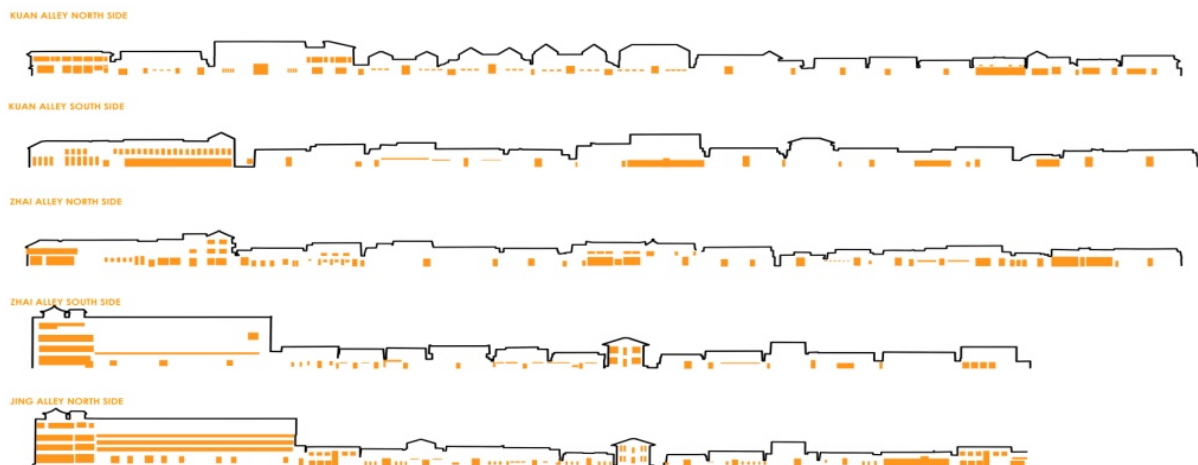


Figure 4.12 Skyline and Permeability of Kuanzhai. Author's diagram.

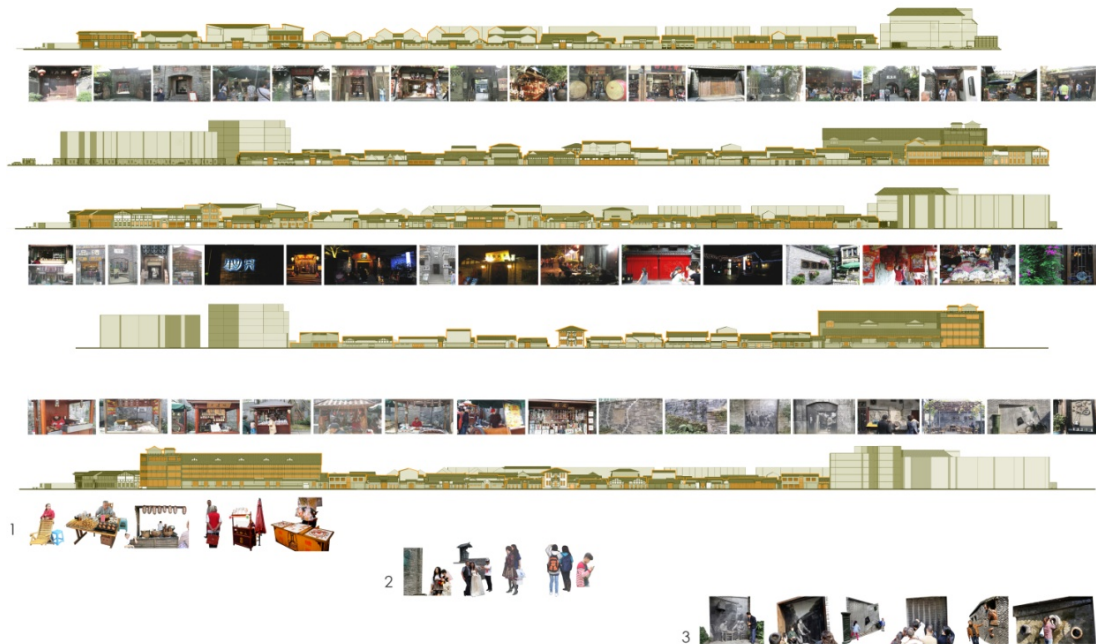


Figure 4.13 Surface and People in Each Alley of Kuanzhai. Photo Credits to the Author. Author's Diagram.

4.4 Principles Generally Applied to a Larger Chinese Urban Context

4.4.1 Main Factors of Application

As introduced in 2.2 *Analytical Methods*--in studying Kuanzhai with respect to western urban design theories, based on the study and analysis of Kuanzhai and western urban design theories, five factors are indispensable in analyzing and designing urban space--programs, time, people, space/ scale and materiality. They could be explained as the following:

Programs:

The programs in a place can affect the composition of people who might go there and the activities they can have there, defining how the place could be used. The diversity of all the programs and the proportion of each can be adjusted based on the exact place.

Time:

Time determines when people could be engaged in that place and how long they could plan their stay there. Based on the programs, time should be set accordingly.

People:

Usually different people have different requirements towards programs and time. In urban design, people are an extremely important factor because they make up the target audience that will be engaging the space.

Space/ scale:

The space and scale highly determine the general look of the place and people's feeling within the space.

Materiality:

Last but not least, materiality is of great importance in urban design too. Surfaces, paving, vegetation, details like sitting, lights and many other physical aspects are included in this.

In future designs, these factors can be considered according to the specific situation.

Under different circumstances, the hierarchy and focus of those factors should be adjusted to fit in the specific place better to create inviting spaces that are open to a wide range of people.

4.4.2 Obvious Differences Between Kuanzhai's Quality and Western Theories

In Jane Jacobs's theory, it is stated that the narrower the sidewalks, the more sedentary incidental play becomes. In Chengdu, this is true in some cases. But mostly, narrow sidewalks are needed because they have their own irreplaceable value. In Kuanzhai, a narrow sidewalk is used as an outdoor photo gallery all the year round. The theme of the exhibition changes

seasonally, the photos decorate the surface and bring interaction opportunities to that place. People enjoy the way it is designed. It is limited to comprehensive or huge programs, but such narrowness decreases distractions. And the change of lane width creates diversified experiences--in the spirit of encouraging people to explore the space. It nurtures people's interest in photography and art in an unconventional way.

Generally in western urban design theories, the physical aspect of the city are typically addressed first, which is followed by the spatial or the spiritual dynamics. This sequence was not true for the development of Chengdu and similar-sized central Chinese cities. Because urban designers working in China often simply copy western theories, local people don't find those places inviting and feel no connections to those perceptibly "faked places". In an eastern-oriented process, the order would be reversed: the spiritual comes first, then the spatial, and finally the physical. Local culture is a source of pride for local people. Creating urban space that has connection with local people's unique tradition and culture has paramount importance in cities of central China. Also in the way of thinking, design of urban space in western cities tends to be directional. In Chengdu and many cities in China, it works better if it is more experiential and less directional, encouraging people to explore more. This design notion has come into being since ancient time but has the tendency of being neglected in recent decades--due to the thoughtless application of western theories.

In addition to the differences, more specific criteria for Chengdu and other central Chinese cities should be added to the advancement of the development model. The detailed criteria is discussed in the next section. Generally speaking, the missing part lies in the

connection between space and local tradition and culture. To be more specific, it is the life style in the past and cultural symbol.

4.4.3 Specific Criteria for Chengdu

The specific criteria for Chengdu has three main categories: people, site and context. Under the site category, subcategories are made: the spiritual, the spatial and the physical. Below are the detailed criteria for Chengdu's urban design.

People:

- Attractions/ business serve various age groups;
- A soft buffer between private and public; services accommodate different income levels;
- Employees/ owners/ residents act as caretakers;
- 24 hour occupation;
- Patrons/ visitors are interactively engaged both individually and collectively (*Figure 4.14*).

PEOPLE

attractions/ business serve various age groups



a soft buffer between private and public



services accommodate different income levels



employees/ owners/ residents act as caretakers



24 hour occupation



patrons/ visitors are interactively engaged both individually and collectively



Figure 4.14 Criteria for Chengdu-People. Author's Diagram.

Site:

The spiritual:

- Reference to the past/ history of the place;
- A schedule/ program of traditional culture-related activities;

- Unconventional opportunities to promote art;
- Clear place-based character.

The spatial:

- No intimidating scale;
- Well proportioned with open space, semi-open space and enclosed space;
- Gentle skyline;
- High vertical permeability at both ends and low in the middle;
- Generally unified while each has its unique feature;
- More the experiential and less the directional.

The physical:

- Mainly native plants with ornamental fruits/ flowers/ leaves;
- Pleasant sound (natural/cultural/ humane/ traditional);
- Pleasant view (natural/ cultural/ humane/ traditional);
- Limited number of materials with various proportions and pattern;
- Materials are context-based; traditional elements collaborate with modern ones;
- Various sitting chances; dynamic surfaces with potential for interaction (*figure 4.15*).

Context:

- Accessible for various transportation means;
- Unique quality compared with the surrounding urban space;
- Peoples' constitution nearby;
- History (*figure 4.16*).

SITE

SPIRITUAL

elements reference to the past/ history of the place



a schedule/ program of traditional culture-related activities



opportunities to promote unconventional art

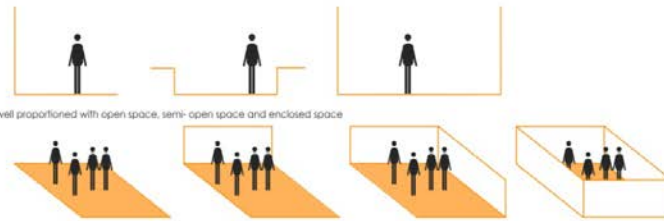


clear place-based character



SPATIAL

no intimidating scale



well proportioned with open space, semi- open space and enclosed space

gentle skyline



high vertical permeability at both ends and low in the middle



generally unified while each has unique feature



more the experiential and less the directional

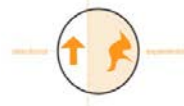


Figure 4.15 Criteria for Chengdu-Site. Author's Diagram.

PHYSICAL

mainly native plants with ornamental fruits/ flowers/ leaves



pleasant sound- natural/ cultural/ humane/ traditional



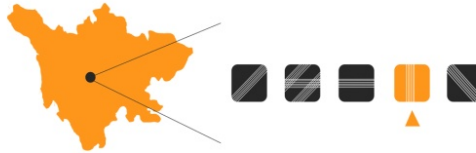
pleasant view- natural/ cultural/ humane/ traditional



limited number of materials with various proportion and pattern



materials are context- based



traditional elements cooperate with modern ones



various sitting chances



dynamic surfaces with potential for interaction



Figure 4.15

CONTEXT

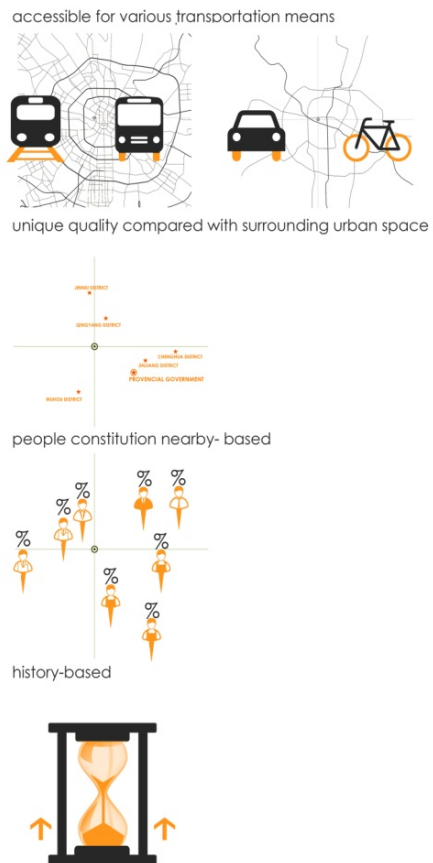


Figure 4.16 Criteria for Chengdu-Context. Author's Diagram.

CHAPTER 5 THE TEST OF NEW CRITERIA TO CHENGDU

5.1 Similarities and Differences of Kuanzhai and Two Other Cities

In order to demonstrate the generality and practicability of the established criteria, two places in Chengdu were chosen for testing (*figure 5.1*). The selection is not random. The other two places--Wenshu and Kejia--have a similar relationship to the city centers. Which means, their distances to the city center are almost the same as Kuanzhai's, but all three places have a different background and context. As introduced above, Kuanzhai used to be the residential area and the style of the structures is a copy of those from the Tsing Dynasty. For Wenshu and Kejia, however, the contexts are totally different. Wenshu, as a district near Wenshu Temple, is a place with a strong religious atmosphere. But unlike typical temples, it is in an urban setting. Compared with Kuanzhai and Wenshu, Kejia has a more complex context in history. It is next to all kinds of modern shopping malls and is highly impacted by western culture.



Figure 5.1 Locations of Kuanzhai and the Other Two Spots. Author's Diagram. Developed from Baidu Map.

5.2 Wenshu in Chengdu

The Wenshu district is located next to Renmin Mid Road, which is near the city center of Chengdu (*figure 5.2*). It is a district attached to Wenshu Temple, one of the major historical and cultural sites protected at the provincial level. To the east, it reaches North Road and Caoshi Road and to the south, it is next to Baijiatang Road and Shuntongqiao Road. Renmin Mid Road is next to the western side and Daan West Road is to the north. Together they form the religious district. The theme here is Buddhism and Zen culture, as well as folk culture.

Wenshu district is one of the most centralized Zen Culture centers. It is known as the "Buddhist Temple in the Metropolis" (Liao and Shen 2012, 1544).

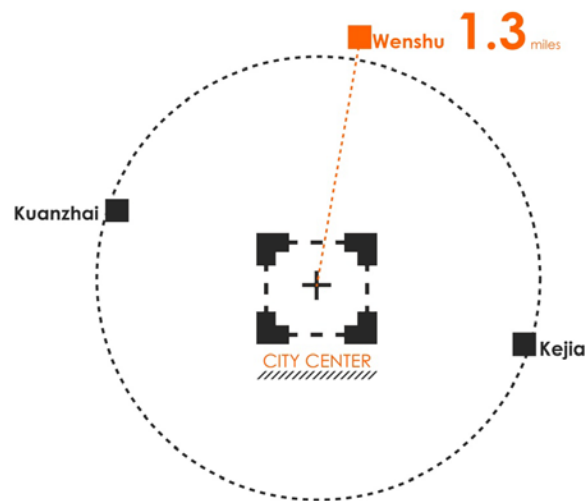


Figure 5.2 Location of Wenshu. Author's Diagram.

To test the criteria generated by the study of western urban design theories and analysis of Kuanzhai, Wenshu is compared in terms of people, time, programs, space/ scale and materiality.

People:

In Wenshu, people are not as diversified as Kuanzhai. Wenshu is a district with strong religious atmosphere. The main business is antique selling--which attracts a limited group of people. Usually the main users are the older people with higher income level. To diversify the user groups, Wenshu is encouraged to have more types of business or antique business with relatively lower cost. The same quality with Kuanzhai is that employees/ owners/ residents there act as caretakers.

Time:

In Wenshu, the available hours are limited. Most of the business in Wenshu starts late and ends early--people are welcomed only for a short span of time. Though it has 24-hour physical attractions like prayer wheels and folk sculptures, few people are willing to stay there when most of the shops are closed. Longer opening hours is encouraged for Wenshu.

Programs:

As mentioned above, programs in Wenshu are limited. It has antique shops, Buddhism stores and several restaurants. Though it has opportunities to eat, monotonous business and attractions cannot serve various groups. More diversified programs can effectively attract a wider range of users.

Space/ scale:

Wenshu has a proper scale which is inviting to people. In the design, it sticks to the traditional aesthetics in Chengdu. Moreover, the courtyard style and scale are unique--which can only be found in Sichuan. Like Kuanzhai, the space in Wenshu is very different

from the skyscraper-dominated city center, which is a strong attraction to people.

Materiality:

In terms of materiality, Wenshu is successful compared with many places in Chengdu.

The material palette is generally unified and deliberately designed in details. Besides, there is a plenty of sitting chances. The vegetation covers four seasons--mainly native species. However, what's less successful is the low surface permeability. Such low exposure decreases its attraction. If more permeability could be added at both ends of the streets in Wenshu, it is likely to be more intriguing to people.

5.3 Kejia Lane in Chengdu

Kejia Lane got its name in the Tsing Dynasty, 1786 (*figure 5.3*). Before it, that region was a village on the outskirts of Chengdu, called "Zhuge Lodge" with no developed lanes. The Chengdu's No.1 Hospital used to be the provincial prison in Tsing Dynasty. From Kangxi to Qianlong periods, during the process of "Hunaners and Guangxiers migrating to Sichuan," a lot of Zhu Xi's descendents entered Sichuan (Zhu Xi is the famous philosopher, educator and a master of neo-Confucianism of China). After their settlement, Zhu's descendents set up the ancestral hall, and named the near lane "Kejia" (Zhu 2009). In modern times, the 1970s, Kejia was the icon for "fashion"--stores were filled with the smartest clothes and ladies were proud of being able to purchase clothes there. Nowadays, due to the development of Chunxi and Yanshikou (two places right next to Kejia), it is losing its popularity and identity.

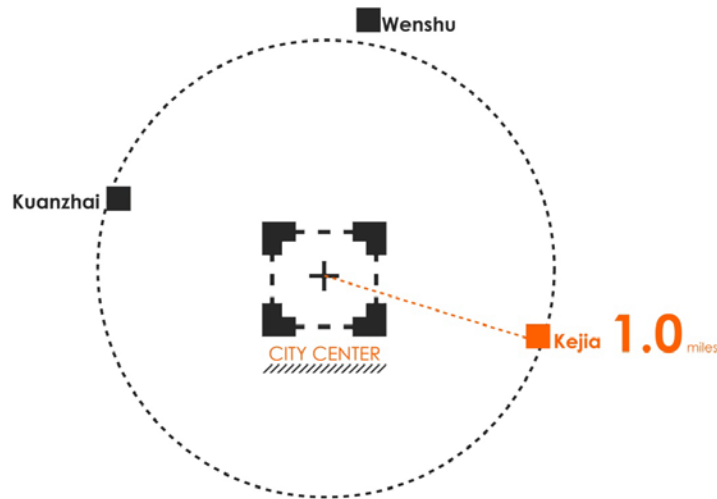


Figure 5.3 Location of Kejia. Author's Diagram. Author's Diagram.

In order to better test the criteria, Kejia is compared in terms of people, time, programs, space/ scale and materiality as well.

People:

In Kejia, people are not as diversified as Kuanzhai. Kejia lane is always filled with young people who go shopping in the surrounding areas. But the focus is seldom on Kejia-- many people simply see it as a connector to places. The solution to this problem would be discussed in the other elements since they are highly related.

Time:

Kejia is available all 24 hours a day and 7 days a week. It is because of the long opening hours of both Kejia and places nearby. The factor of time is successful in Kejia.

Programs:

Programs in Kejia are diversified--in a negative way. It has fashion clothes shops, one western church, the relic of an old hospital and opportunities to eat and drink. But such diversity does not have a cohesive theme or connection--which decreases its identity.

People tend to engage in similar programs in other places nearby. In terms of this problem, Kejia needs to find its own identity to make all the programs organized.

Space/ scale:

Kejia has a proper scale compared with places nearby. But the way it creates space is not inviting. People in Chengdu are willing to have a soft buffer between private and public while Kejia's space is not diversified. Further, it has a demarcation between private and public. Having a softer buffer between them could help Kejia to become a more inviting place to people in the city of Chengdu.

Materiality:

In terms of materiality, Kejia would be much more successful if the criteria in this thesis were applied. It barely has any sitting opportunities--which is one of the reasons that people seldom stay there. The materials are not unified at all--indeed, they are of too many different types. Such mingling gives low identity to that place and confuses people. The vegetation is limited in Kejia and most of them are countrywide species--which also decreases its identity. To make Kejia a more successful urban space, more sitting chances, native plants and unified materials are needed.

The comparison of qualities in Kuanzhai and the other two--Wenshu and Kejia demonstrates the practicability of the criteria, which is generated for an alternative urban development model in Chengdu and other central Chinese cities.

CHAPTER 6 SUMMATION

This study aims at establishing criteria towards advancing an alternative urban development model for central Chinese cities. This work performs study on western urban design theories along with intensive analysis and comparison of a successful model in Chengdu named Kuanzhai. This work is motivated by the fast urbanization process in China, and the consequences of applying western urban design theories to such eastern settings. The study has also sought to understand the practicality and suitability of such criteria by testing them in other two locations in Chengdu. All three locations have different qualities and contexts, thus to test the criteria better. The thesis sought to answer the questions below:

1. What makes Kuanzhai a successful model in the urban setting of Chengdu (the criteria generated from Kuanzhai)?
2. What are the differences between the criteria towards advancing an alternative urban development model for central Chinese cities and the western urban design theories?
What are missing?
3. How this criteria could be used in a larger scale?

Kuanzhai, as a district near the city center, has maintained its unique historical style and gives urbanites the opportunities to enjoy the most authentic way of life in Chengdu--based on the history and tradition. Besides the spatial and physical attractions, it also puts the spiritual connection to local people via events, performances, etc.--which again further guarantees its success. Compared with western urban design theories, the criteria generated for central Chinese cities differ mainly in the quality of the division between private and public space;

people's perception of space; and design concerning the specific background and culture.

This thesis is a contribution towards the establishment of specific urban design theories of cities in central China. Beyond this, the study and analysis, as well as the methodology during the process are useful for further studies and theory development. Together with the five focus factors--people, time, space/ scale, programs and materiality, the study, analysis and methodology could be used as reference and guidance for urban designers in other Chinese cities. The outcome illustrates that learning the methods in western urban theories is much more effective than using the conclusions directly.

This study has direct benefits on Chengdu and nearby central Chinese cities, but there might be limitation of direct application for larger areas or cities far from Chengdu. The main empirical findings are presented in different chapters and are summarized within the chapter: 'Outcomes of Kuanzhai Analysis', in which, the sub-chapter 'Principles Generally Applied to a Larger Chinese Urban Context' is beneficial to a large group.

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Figure 1.1, Courtesy of the Town and Country Planning Association. Howard 's Diagram of Garden City. *The Atlantic Cities*.

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